

OMNI-DIRECTIONAL CAMERA DESIGN FOR VIDEO CONFERENCING

ABSTRACT OF THE DISCLOSURE

5 An omni-directional camera array that is very small and unobtrusive and
allows for higher pixel resolution for the face of meeting participants sitting or
standing around a conference room table, as would be typical in a video
conferencing situation. The camera system of the invention uses N cameras
and an N sided mirror to capture images of the surrounding scene. The cameras
10 are arranged to have a small distance between their virtual centers of projection.
The images from the N cameras are stitched together to create a 360-degree
panorama using a calibration surface. To stitch the images together in real-time,
a static image stitcher is used, which stitches images together perfectly for
objects on a calibration surface. The calibration surface is typically defined by
15 the boundary of the table the camera is sitting on.